

In the Claims:

1. (Currently Amended) An acetabular reamer, which comprises:
 - a) a cutting shell having a shell curvature extending from an apex to a lower edge and comprising at least a portion of a hemisphere, the cutting shell being rotatable about a longitudinal axis; and
 - b) a plurality of cutting teeth thereon, wherein each cutting tooth comprises two buttress portions extending from the cutting shell and meeting an intermediate cutting edge having a second hemispherical curvature that is greater than the hemispherical curvature of the cutting shell and that is rotatable about the longitudinal axis.
2. (Previously Presented) The reamer of claim 1 wherein a generally circular hole precedes each of the cutting edges as the reamer is rotated for cutting.
3. (Previously Presented) The reamer of claim 1 wherein the cutting teeth are arranged uniformly and spaced apart on the cutting shell.
4. (Previously Presented) The reamer of claim 3 wherein the cutting teeth are arranged in a spiral arrangement on the cutting shell.
5. (Cancelled)
6. (Cancelled)

7. (Previously Presented) The reamer of claim 2 wherein the reamer includes a series of cutting teeth arranged uniformly and spaced apart on the cutting shell.

8. (Previously Presented) The reamer of claim 2 wherein the cutting teeth are arranged in a spiral configuration on the cutting shell.

9. to 12. (Cancelled)

13. (Previously Presented) An acetabular reamer, which comprises:

- a) a cutting shell having a curvature;
- b) a plurality of cutting teeth extending upwardly from the cutting shell, each cutting tooth comprising two buttress portions extending from the cutting shell and meeting an intermediate cutting edge spaced furthest from the shell, the intermediate cutting edge having a cutting curvature that matches the curvature of the shell for the intermediate cutting edge's length until it meets the buttresses; and
- c) wherein the cutting edges of the plurality of cutting teeth extending upwardly from the cutting shell are in an overlapping arrangement so that rotation of the reamer against bone cuts a hemispherically shaped cavity into the bone.

14. (Cancelled)

15. (Currently Amended) An acetabular reamer, which comprises:

- a) a cutting shell extending from an apex to a lower edge and having a curvature defined by a cutting shell radius, the cutting shell being rotatable about a longitudinal axis; and
- b) a plurality of cutting teeth thereon, wherein each cutting tooth comprises two buttress portions extending from the cutting shell and meeting an intermediate cutting edge spaced furthest from the cutting shell, the cutting edge being continuously defined from one buttress to the other buttress by a plurality continuum of cutting edge radii that each have a focal point located on the longitudinal axis to thereby define a hemispherical shape.

16. (Previously Presented) An acetabular reamer for cutting a hemispherical shape, comprising:

- a) a cutting shell defining a spherical center and carrying a plurality of raised teeth positioned thereon with adjacent openings; and
- b) at least one tooth having an arc cutting edge with a constant radius from the spherical center and two secondary edges supported by gussets which curve toward the shell.